

MBTA Red Line Investments and Projects Quincy, Massachusetts

City Council Brief
April 3, 2017



MBTA South Shore Red Line Investments

Initiative	Investment	Timeline
Winter Resiliency	\$111 M	Complete
New Red Line Trains	\$458 M	Nov. 2019 – June 2024
Traction Power Project	\$20 M	2017 – 2018
Signal System Upgrade	\$186 M	2017 – 2023
Braintree Garage	\$31 M	Sept. 2017 – Aug. 2019
Quincy Adams Garage	\$42 M	Sept. 2017 – Dec. 2020
Quincy Center Garage Demolition	\$25 M	July 2017 – Dec. 2018
Wollaston Station Improvements	\$38 M	July 2017 – June 2020
North Quincy Transit Oriented Development		Early 2018 – Dec. 2018 (Garage)
Mitigation		Ongoing

TOTAL SOUTH SHORE RED LINE INVESTMENTS - \$911 M

Agenda

- **Operations Projects** (MBTA C.O.O. Jeff Gonneville)
 - Winter Resiliency
 - New Red Line Trains
 - Traction Power Project
 - Signal System Upgrade
- **Transit Facility Projects** (P.M. John McCormack, Joe Cheever)
 - South Shore Garages (Quincy Adams & Braintree)
 - Quincy Center Garage Demolition
 - Wollaston Station Improvements
- **Community Partnerships** (Chief Strategy Officer Scott Bosworth)
 - North Quincy Transit Oriented Development
 - Mitigation
 - Investment Summary

Operations Investment Overview

- System-wide Reliability
- Safety
- Accessibility and Enhanced Rider Comfort
- Improved Time Between Trips

Winter Resiliency

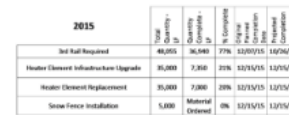
Phase 1 – Completed 2015

- \$80 million to improve investment , vehicle resiliency and infrastructure work
- \$22.5 million (13.6 miles) of 3rd Rail, associated support insulator replacement on the Red Line from the Andrew portal to Quincy Adams Station
- New portable 600V DC Substations and emergency generators.



Phase 2 – Completed 2016

- Install 5.8 miles of new signal trough between Wollaston and Braintree Stations



Sample Weekly Score Card

New Red Line Trains

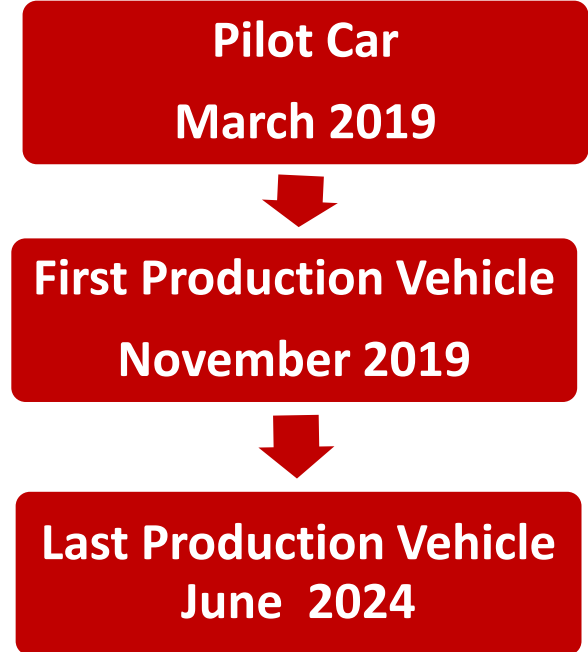
- In 2014 the Board approved a contract with CRRC to produce 132 Red Line No. 4 Cars (replacing the No. 1 and 2) leaving the Red Line No. 3 cars
- 86 No. 3 cars put into service in 1993-1994 (23-24 years old)
- In 2016 the FMCB approved the purchase for 120 more Red Line No. 4 cars from CRRC standardizing the entire Red Line Fleet
- A total number of 252 Red Line No. 4 cars purchased
- Total Investment \$458 M



New Red Line Trains

Improvements with No. 4 cars

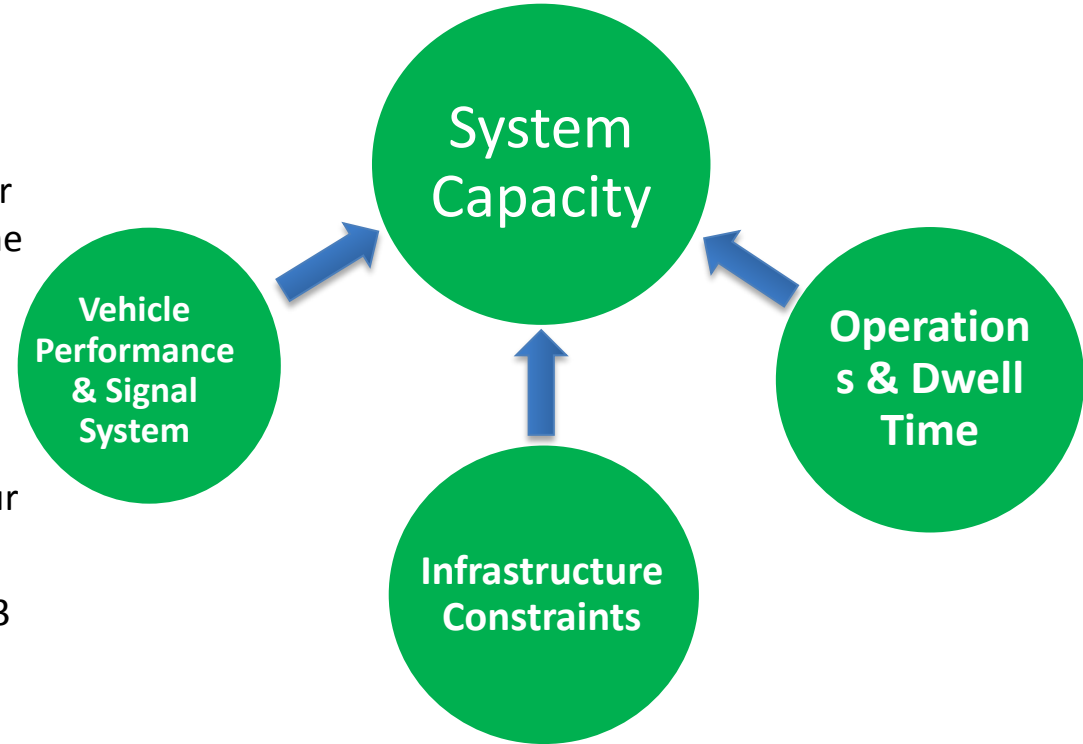
- Advanced propulsion system
- Improved trigger for vehicle signal controller
- Improved braking control technology
- Increased car capacity
- Wider doors
- More accessible areas
- Advanced passenger information and announcement systems such as LCD displays



New Red Line Trains

Benefits –

- With the new vehicles' performance, minor speed code changes and replacement of the No. 3 cars, Red Line could theoretically maximum capacity increase from 13-20 trains per hour.
- 50 % increase in customers carried per hour
- More trains more frequency resulting in a 3 minute headway
- Trains are designed to operate for 30 years



Traction Power Project

Systems that provide power to trains along the Braintree branch are being upgraded

- \$20 million program
- Increased reliability of service
- Completed by late -2018
- Additional power capacity to support future additional trains



Original Open Faced DC Switchgear



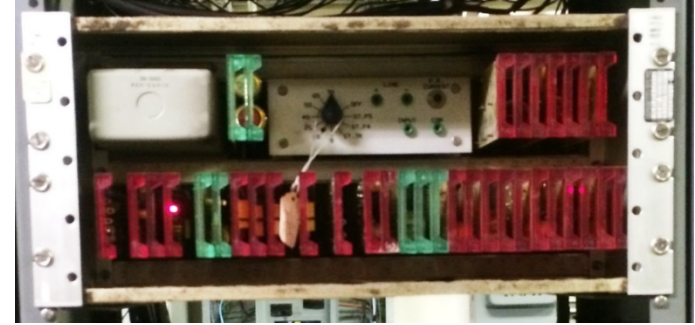
New Metal Enclosed DC Switchgear being Factory Tested

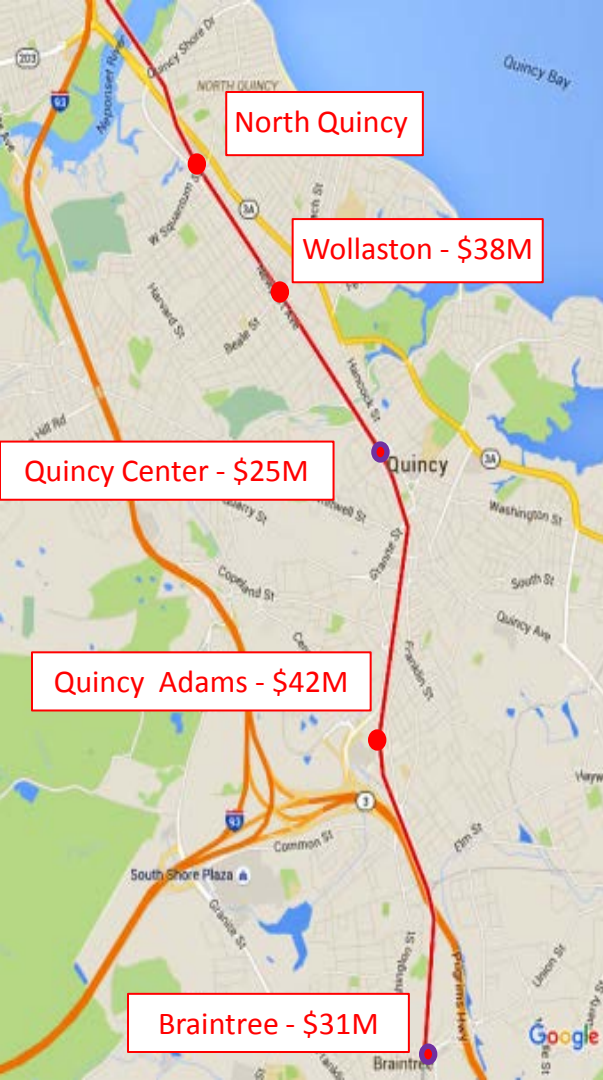


Installation of No.1 RECT TRANS at the Wollaston Traction Power Substation ACCESS GATE

Red Line Signal System Upgrade

- \$186 million Program
- Replace existing system with new digital system
 - Faster system response time
 - Less maintenance cost
 - Substantial increase in reliability
- Trains will be able to run faster for longer, necessary to achieve a 3 minute headway versus current 4 – 5 minute headway
- Nov. 2017 – June 2023

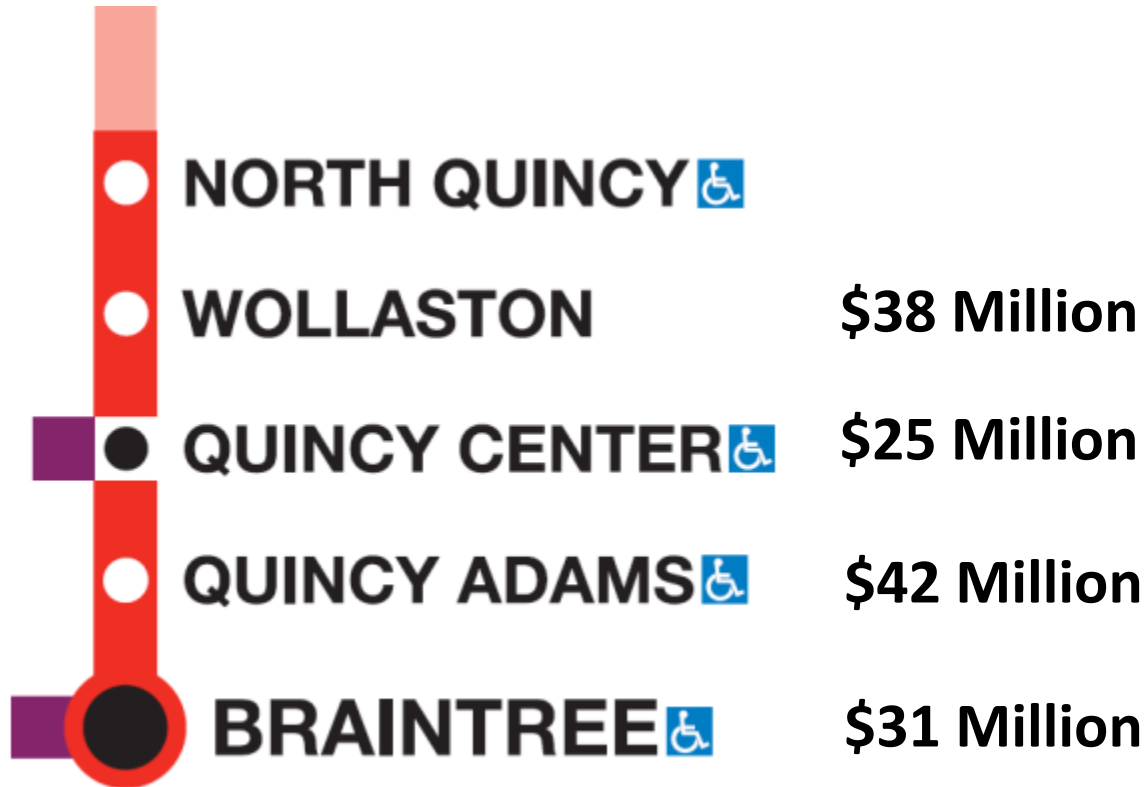




Transit Facilities Overview Quincy, Massachusetts



Transit Facility Projects



South Shore Garages - Braintree

- **Purpose:**
Rehabilitation/improvements to bring garage into state of good repair.
- **Scope:**
Structural Repairs, System & Accessibility upgrades
- **Notice to Proceed:**
Summer 2017
- **Construction Duration** – 23 months
(Sep 2017 – August 2019)
- **Construction Value** - \$31M



South Shore Garages - Braintree

Project Improvements

- Increased parking
- Improved traffic circulation
- New wayfinding signage
- Accessibility upgrades
- New garage lobby, redundant elevators, stairs
- New Parking Services Office
- Structural repairs
- Replace garage lighting and plumbing
- 130 temporary replacement parking spots - across Ivory Street



South Shore Garages - Quincy Adams



- **Purpose:**
Rehabilitation/improvements to bring garage into state of good repair.
- **Scope:**
Structural Repairs, System & Accessibility upgrades
- **Notice to Proceed:**
Summer 2017
- **Construction Duration** – 39 months
(Sep 2017 – December 2020)
- **Construction Value** - \$42M

South Shore Garages - Quincy Adams



Project Improvements

- Increased parking capacity
- Improved traffic circulation
- New vehicle and pedestrian wayfinding signage
- Accessibility upgrades
- Atrium Improvements
- Renovated Parking Services Office
- Structural repairs
- Replacement of garage lighting and plumbing systems
- Centre Street Bridge Repairs

Quincy Center Garage Demolition

- **Purpose:**

Advance Phase I of Quincy Center Station Air Rights Redevelopment

- **Scope:**

Remove garage above Level 2,
Replace existing elevator, Add
accessible entrance at Burgin
Parkway

- **Notice to Proceed:**

Summer 2017

- **Construction Duration** – 18 months
(July 2017 – December 2018)

- **Construction Value** - \$25M



Quincy Center Bus Facility Rebuild

- Federal Grant \$4.2 million to City of Quincy
- Design to be coordinated with developer



Wollaston Station Improvements

- **Purpose:**
Fully Accessible Red Line, State of Good Repair, Modernization
- **Scope:**
Full Station Upgrade, Elevators, Egress, Utilities Upgrades, Flooding Mitigation
- **Notice to Proceed:**
Summer 2017
- **Construction Duration** – 35 months
(July 2017 – June 2020)
- **Construction Value** - \$38M



Wollaston Station Improvements



Wollaston Station Improvements

Construction Duration: 35 months

July 2017 – Summer 2020

Considerations:

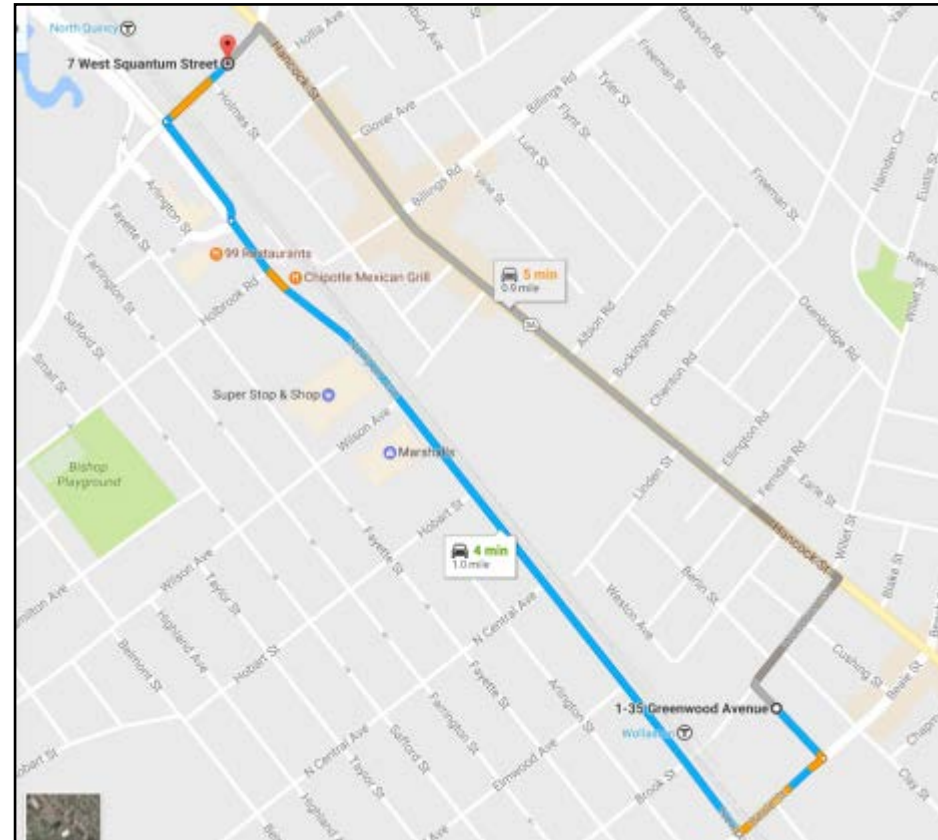
- Safety, Customer Experience, Cost/Schedule

20 Month Station Closure – Temporary Bus Service

- Dedicated bus service between Wollaston and North Quincy with 10 minute headways
- Dedicated Accessible Bus stops on Newport Avenue and Greenwood Avenue w/Shelter, Lighting and Snow Removal

Contract Parameters:

- 115 (max) spaces unavailable during construction
- 20-month Station Closure – Temporary Bus Service
- Diversions & Early Access

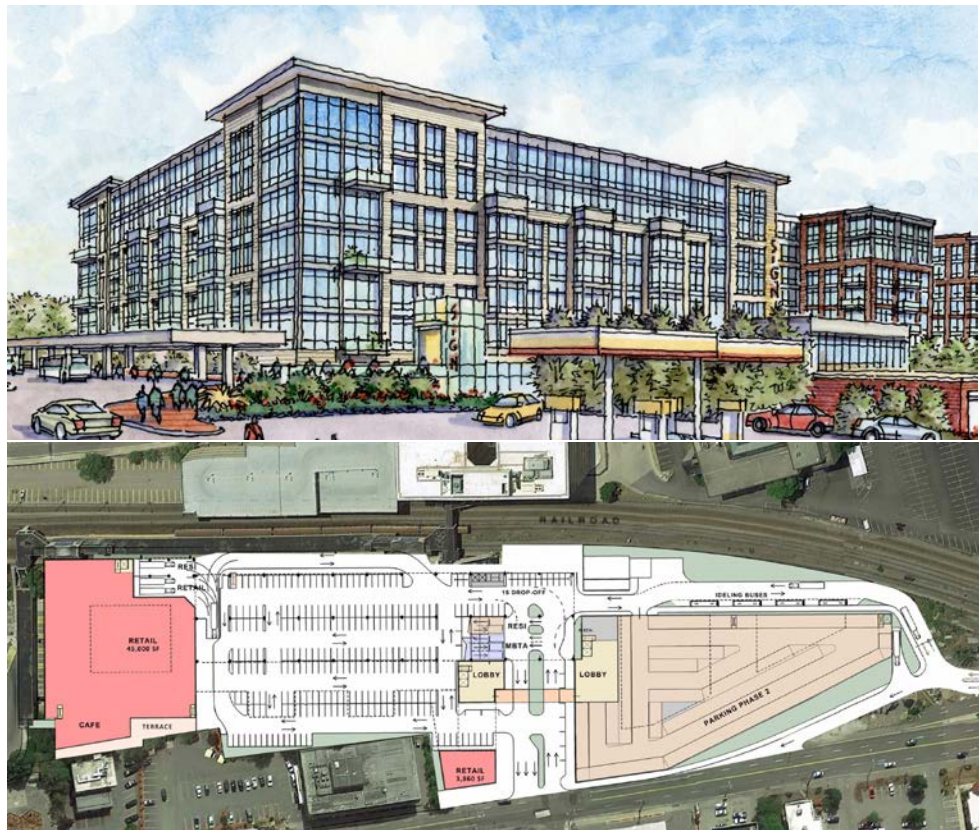


MBTA Commitment to Community Partnerships

- Transit Oriented Development
- Connecting Where People Live with Where They Work
- Exploring Alternative Transit Solutions

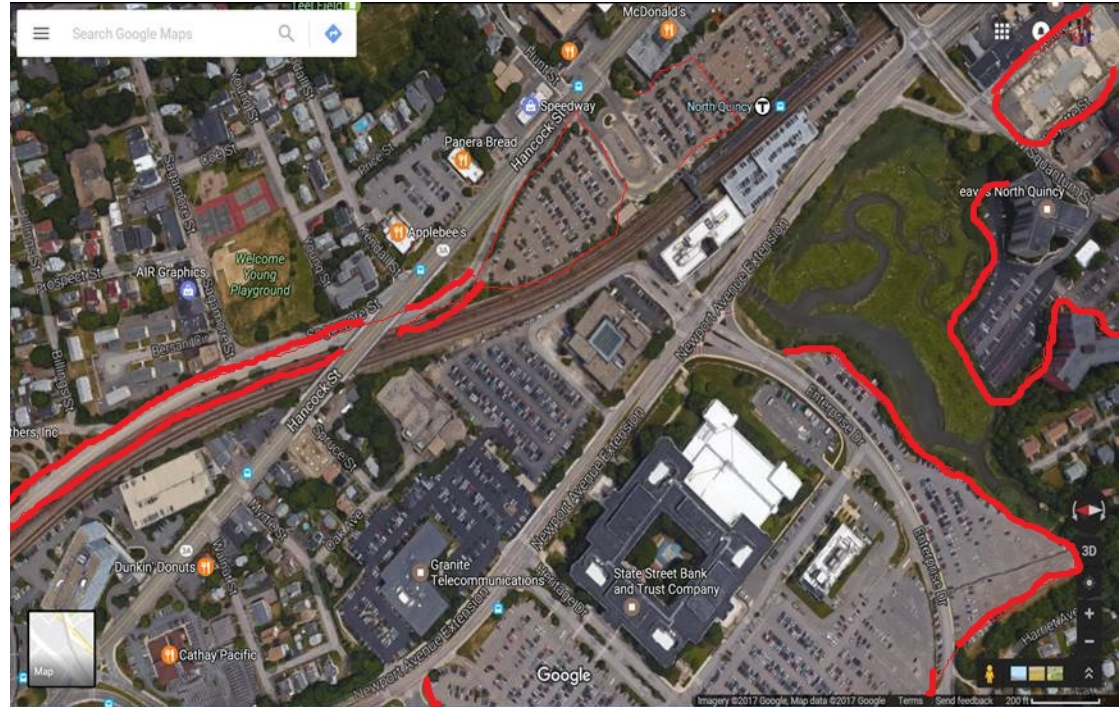
North Quincy Station Redevelopment

- Bozzuto Group / Atlantic Development
 - \$205M project
 - ±610 residential units
 - ±50,000 sq.ft. of retail
 - ±\$1.6M annual tax revenue
 - Contribution to Affordable Housing Trust Fund
- Once completed MBTA commuters will have access to 852 of the ±1600 parking spaces
- Garage construction starts early 2018, with completion in approx. one year
- During construction, ±260 spaces of 852 original spaces will remain open at all times



North Quincy Station Parking Mitigation

- On-Site Options
 - Re-configuration of North Lot
 - Valet Car Stacking
 - Developer construction phasing
 - MBTA Owned Cmdr. Shea Blvd.
- Off-Site
 - West Quantum Street Private Parcels
 - Enterprise/Heritage Drive Private Parcels
 - North Quincy H.S. (Summer use)
 - Quantum Point DCR Lot



Additional Mitigation

- \$2.1 M – Commander Shea Blvd. Extension



- Funding for Traffic Management Police Details at Neponset Circle

Ferry Service

MassDOT Funding

- Feasibility Study
for Long Term Ferry Service
- Subsidy for Quincy / Winthrop
Ferry Partnership



MBTA Quincy Red Line Projects Public Meeting Schedule

TUESDAY, APRIL 4 - WOLLASTON STATION RENOVATION

Tobin Towers Dining Hall – 2pm
80 Clay Street, Quincy

Central Middle School Auditorium – 6:30pm
875 Hancock Street, Quincy

THURSDAY, APRIL 6 - QUINCY CENTER GARAGE DEMOLITION

Old City Hall, Lower Level – 6:30pm
1305 Hancock Street, Quincy

TUESDAY, APRIL 11 - QUINCY ADAMS GARAGE RENOVATION

Lincoln Hancock School, Cafeteria – 6:30pm
300 Granite Street, Quincy